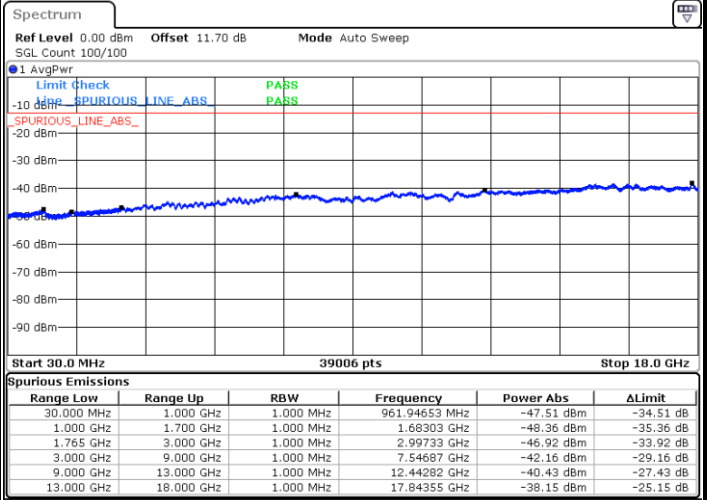
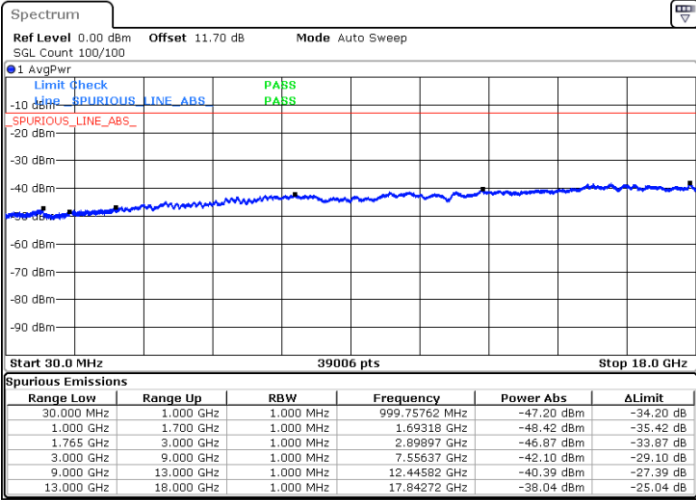




LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

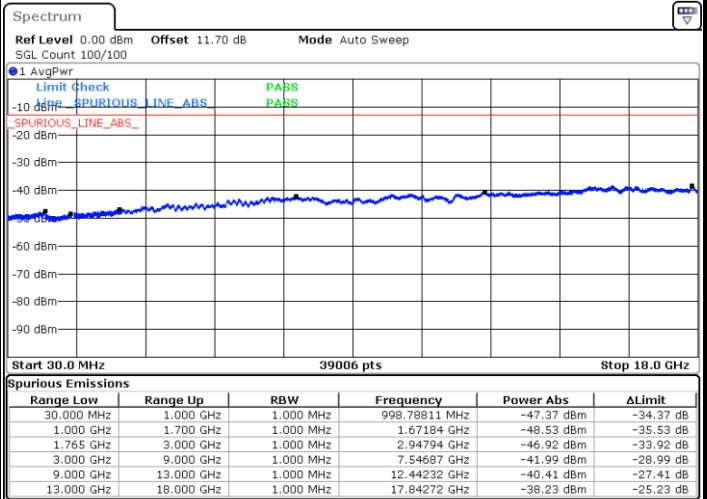
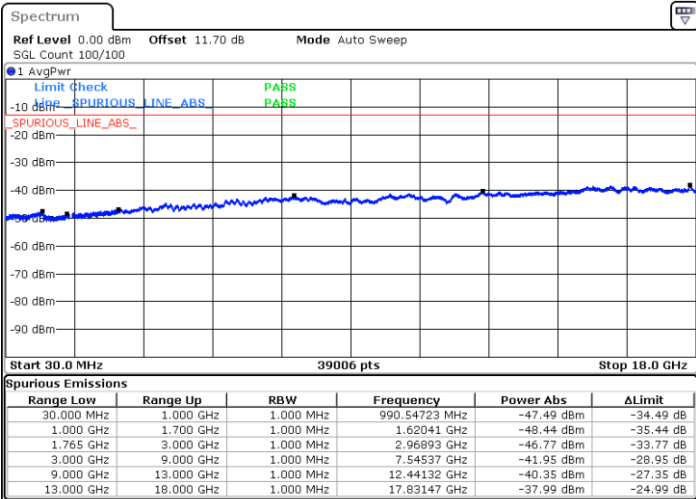


Date: 17. JAN 2020 17:42:12

Date: 17. JAN 2020 17:42:52

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17. JAN 2020 17:48:24

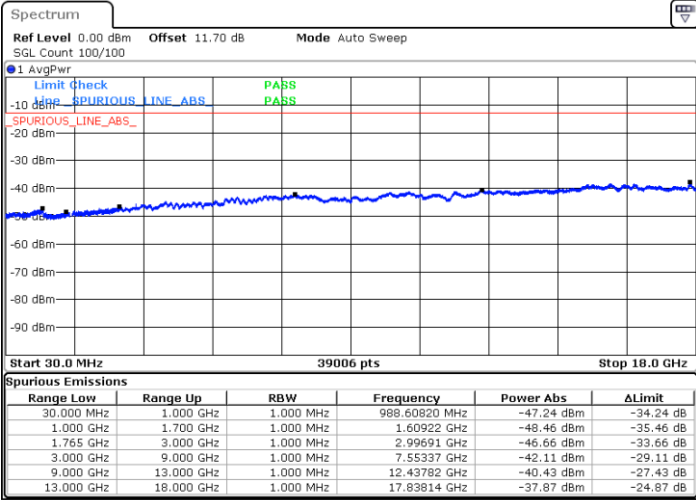
Date: 17. JAN 2020 17:49:05



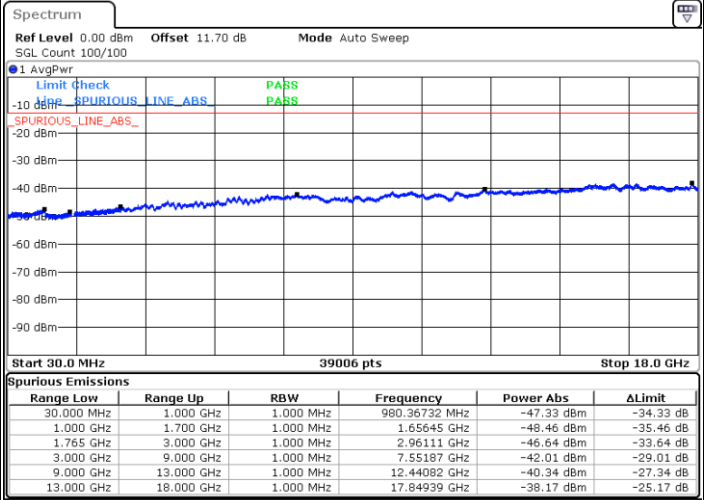
LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



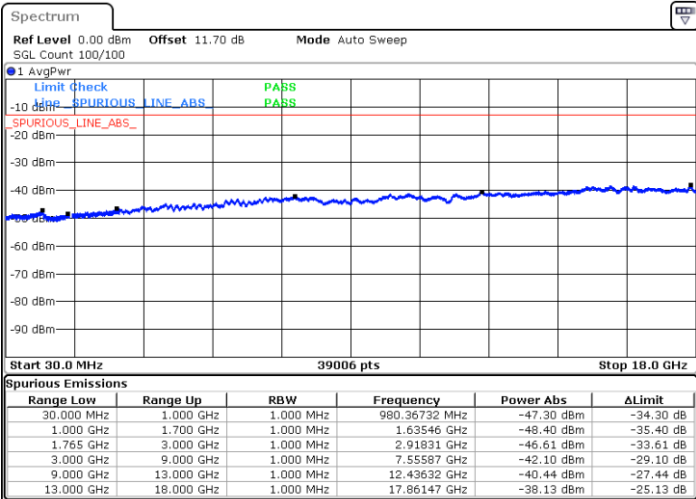
Date: 17.JAN.2020 18:09:13



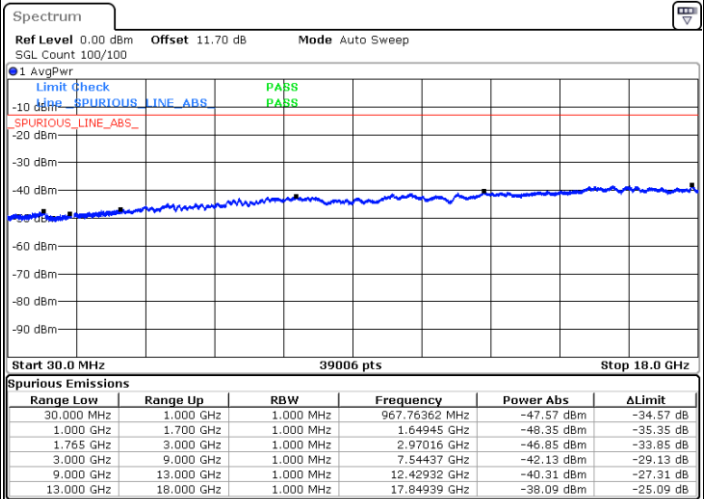
Date: 17.JAN.2020 18:09:54

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 17.JAN.2020 18:11:22

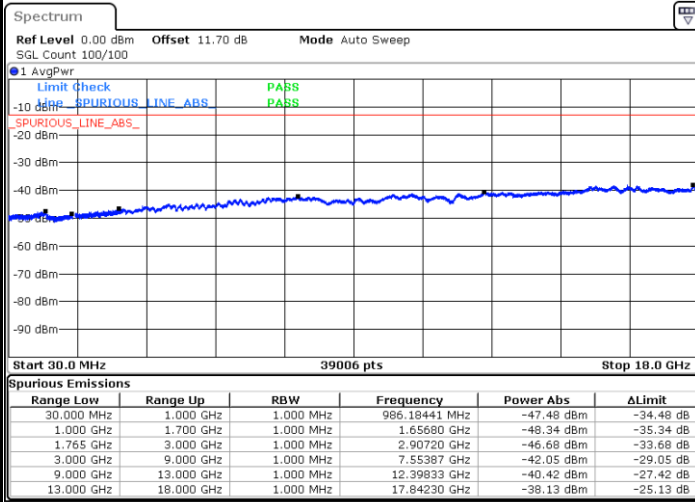


Date: 17.JAN.2020 18:12:03



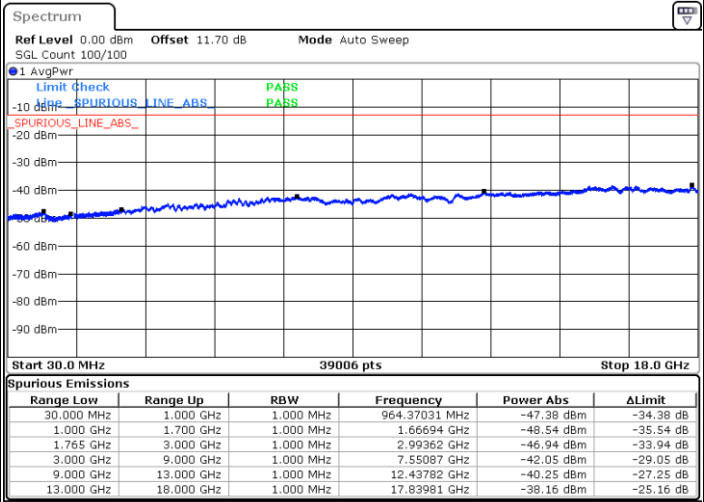
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 17.JAN.2020 18:17:36

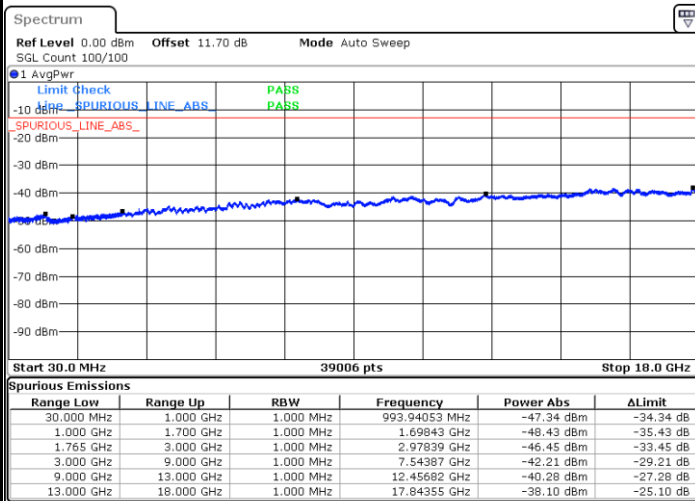
Highest Channel / 16QAM



Date: 17.JAN.2020 18:18:17

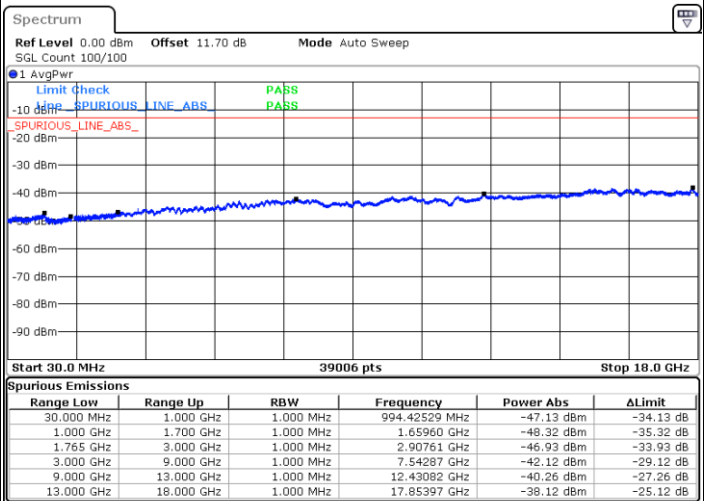
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 17.JAN.2020 18:23:51

Lowest Channel / 16QAM



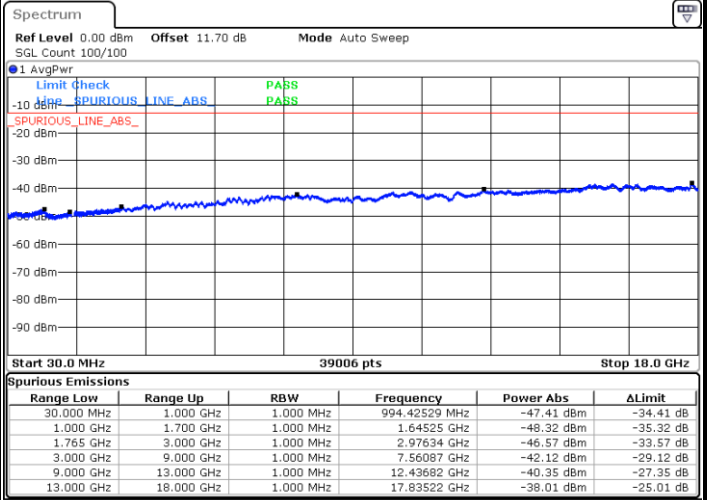
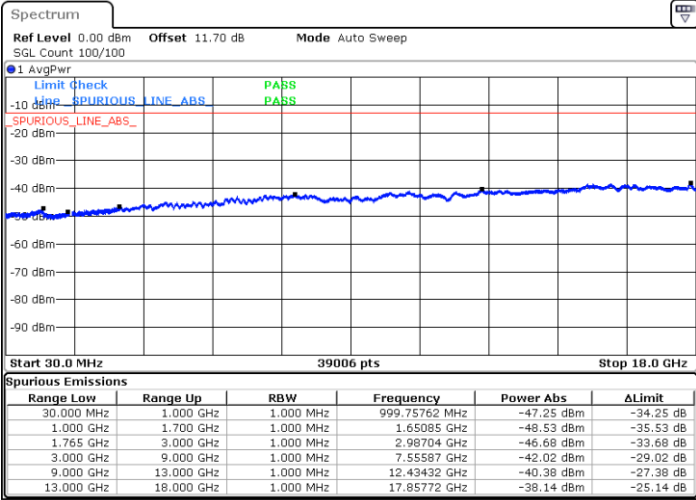
Date: 17.JAN.2020 18:24:31



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

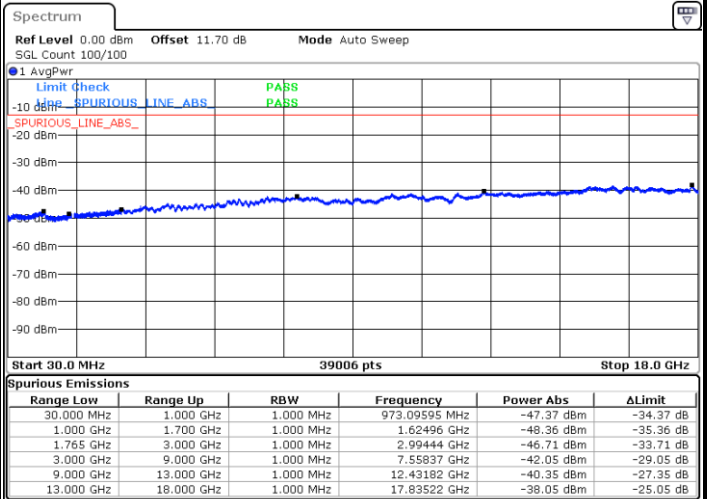
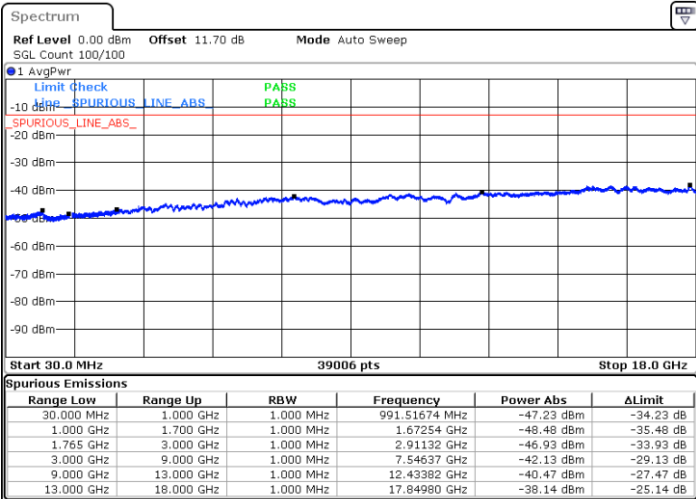


Date: 17. JAN 2020 18:25:58

Date: 17. JAN 2020 18:26:39

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17. JAN 2020 18:32:11

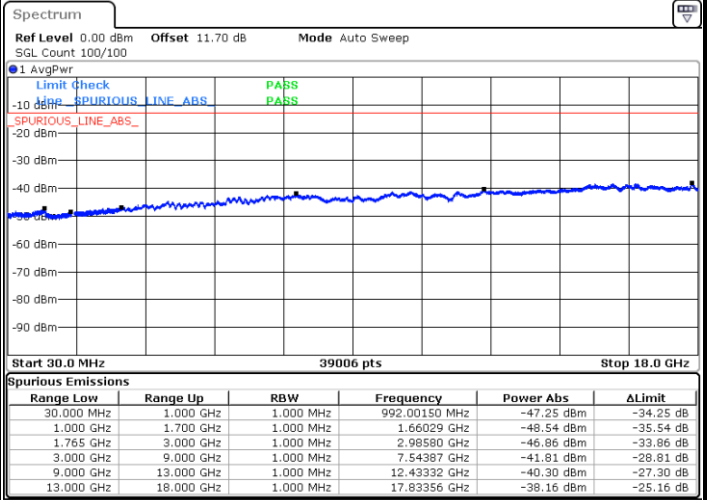
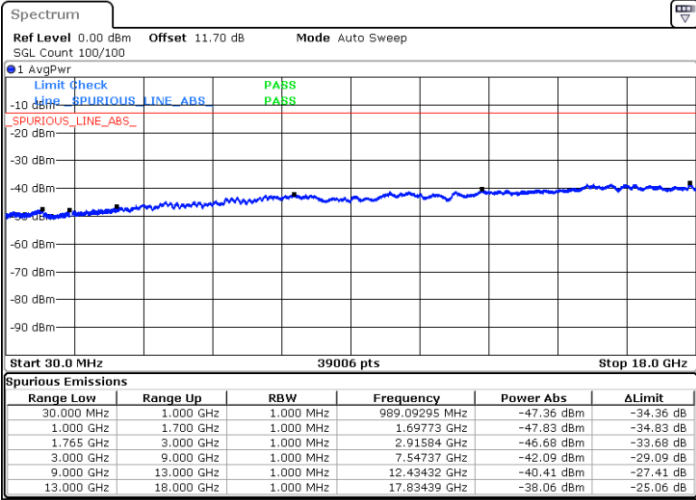
Date: 17. JAN 2020 18:32:52



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

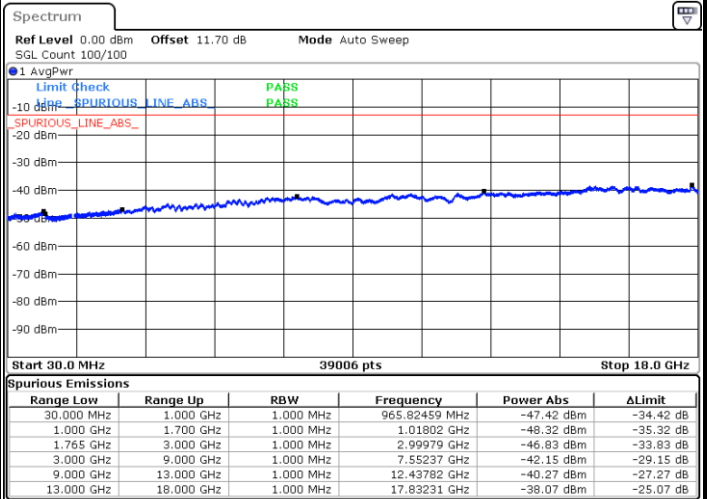
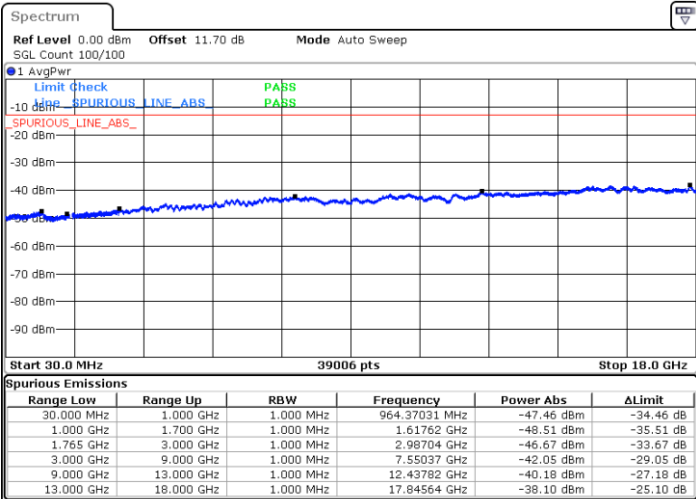


Date: 17. JAN 2020 18:45:44

Date: 17. JAN 2020 18:46:25

Middle Channel / QPSK

Middle Channel / 16QAM



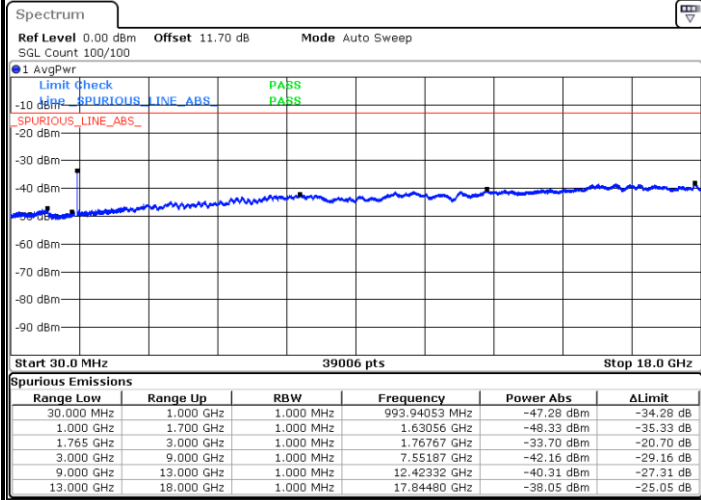
Date: 17. JAN 2020 18:47:52

Date: 17. JAN 2020 18:48:33



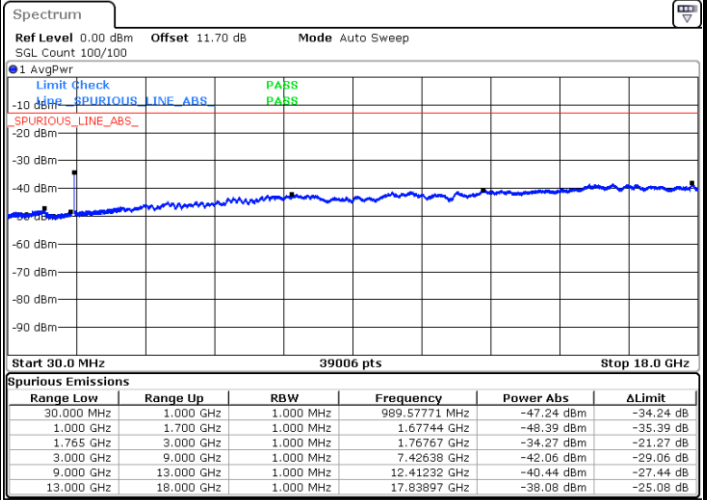
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 17.JAN.2020 18:54:04

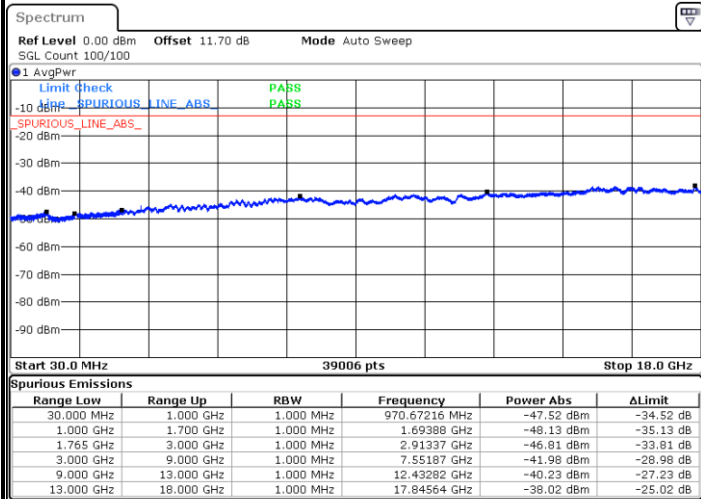
Highest Channel / 16QAM



Date: 17.JAN.2020 18:54:45

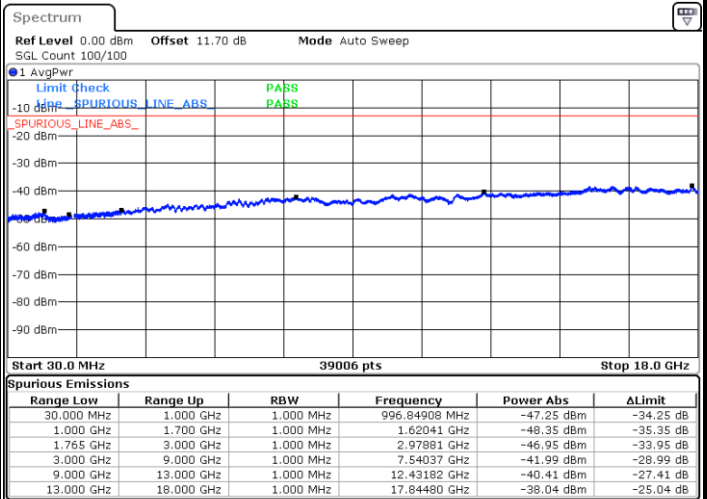
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 17.JAN.2020 19:07:36

Lowest Channel / 16QAM



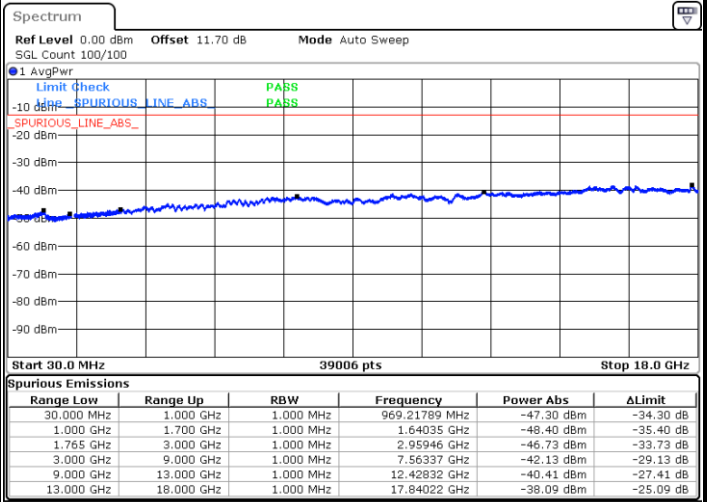
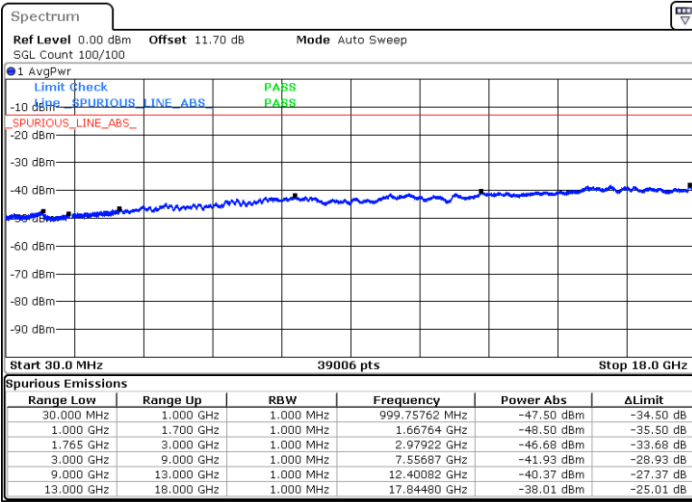
Date: 17.JAN.2020 19:08:17



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

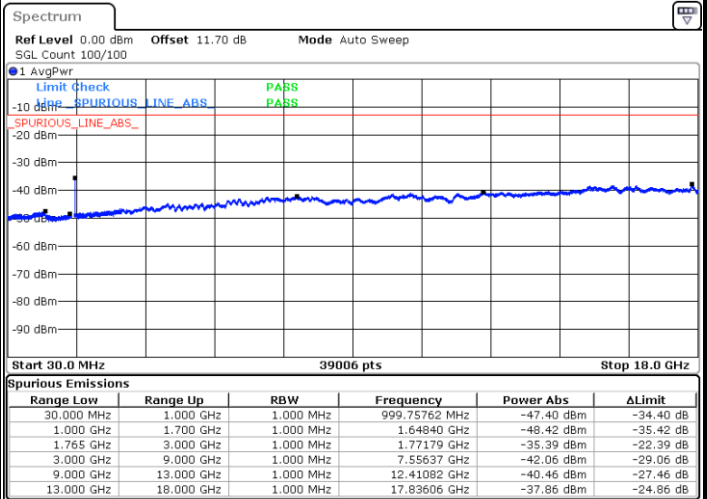
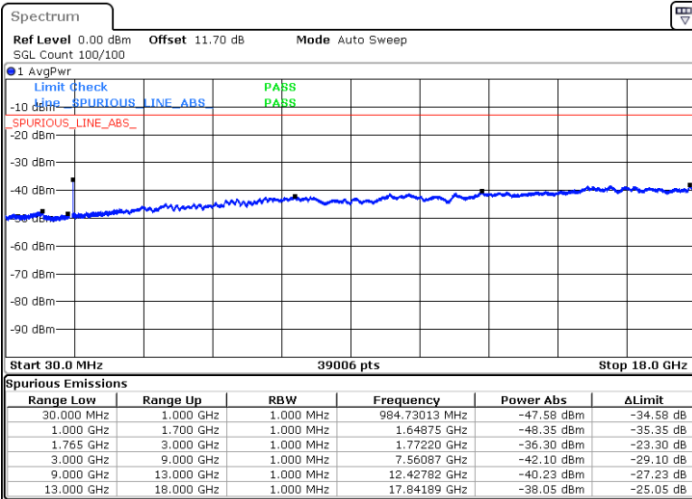


Date: 17. JAN 2020 19:09:44

Date: 17. JAN 2020 19:10:25

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17. JAN 2020 19:15:57

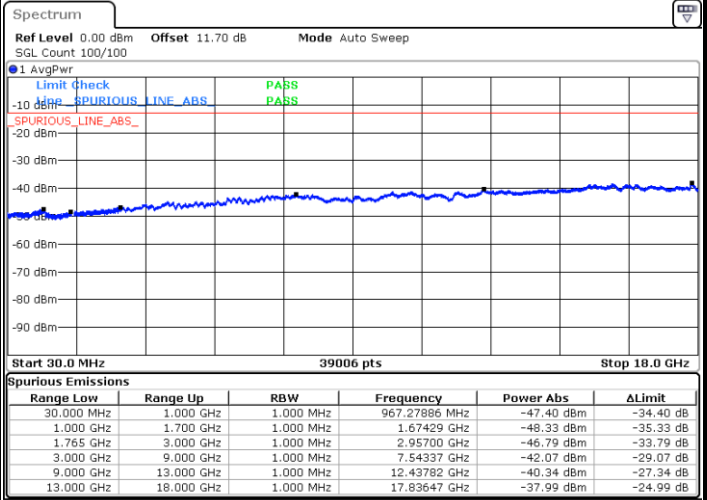
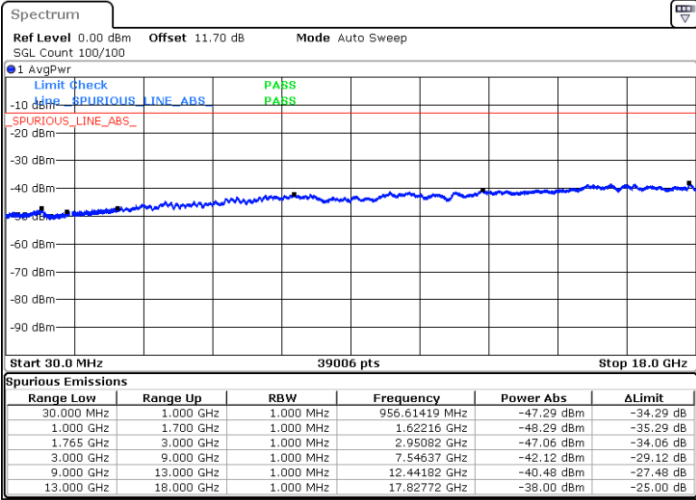
Date: 17. JAN 2020 19:16:38



LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM

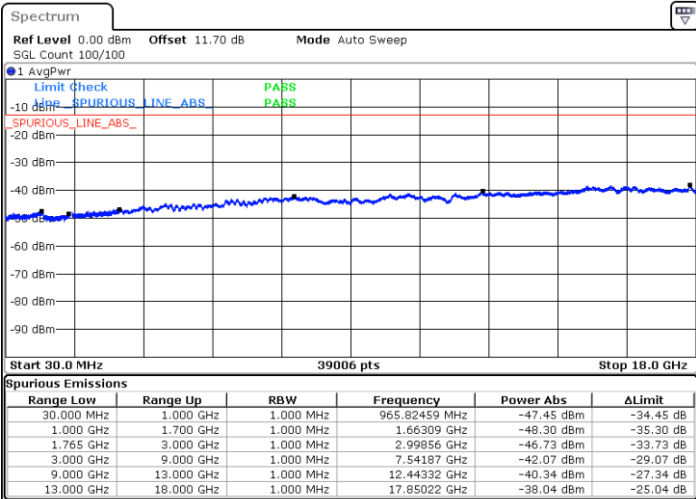
Middle Channel / 64QAM



Date: 17.JAN.2020 17:30:13

Date: 17.JAN.2020 17:31:17

Highest Channel / 64QAM



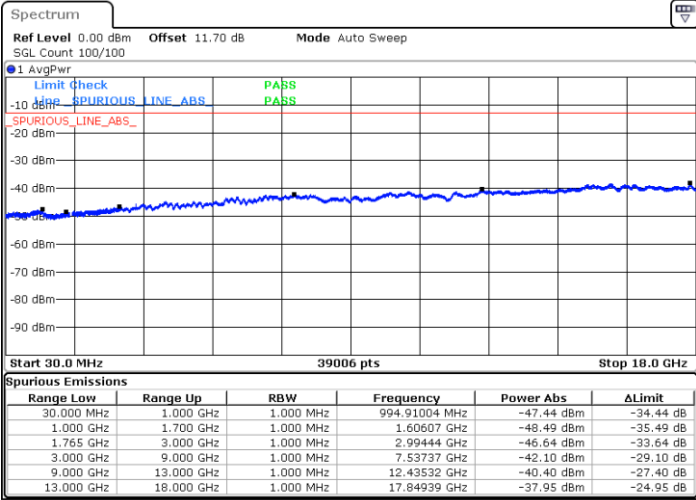
Date: 17.JAN.2020 17:34:29



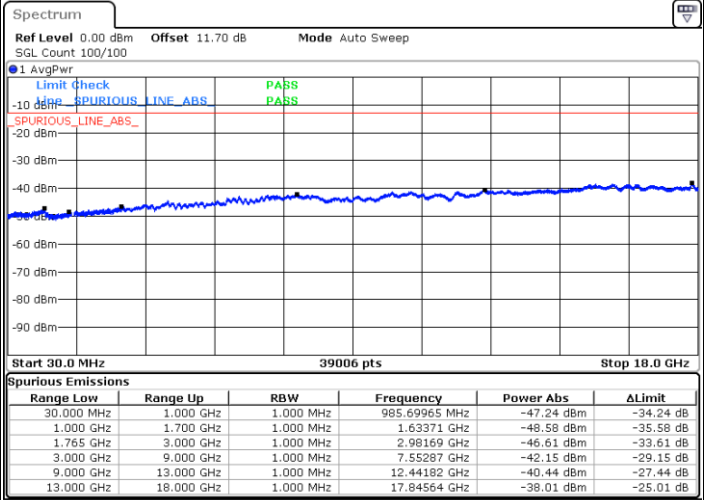
LTE Band 4 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

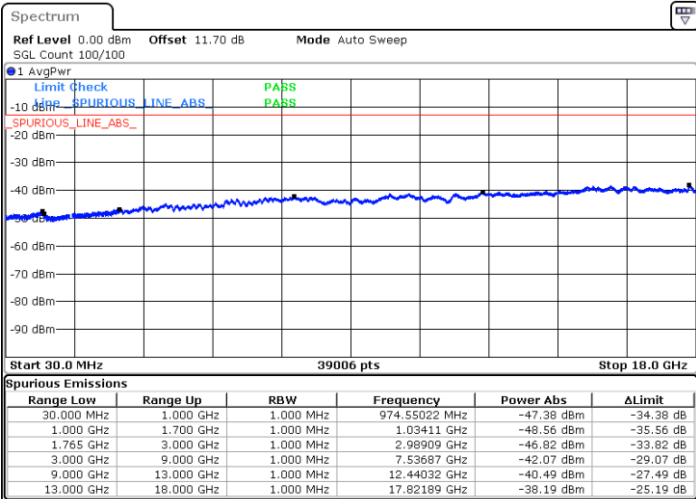


Date: 17. JAN 2020 17:52:12



Date: 17. JAN 2020 17:53:16

Highest Channel / 64QAM



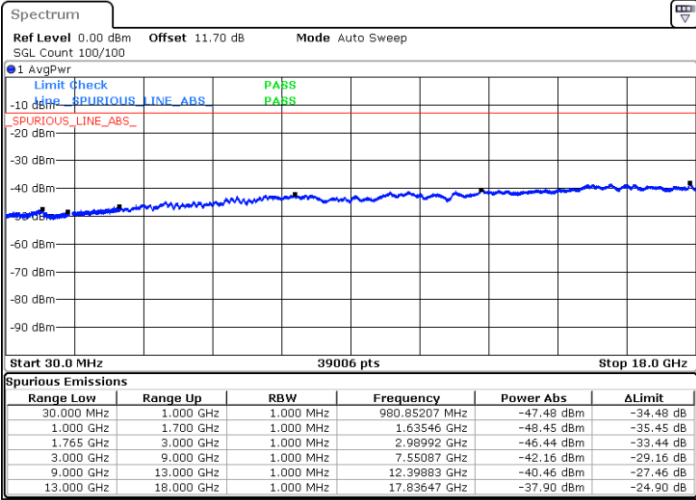
Date: 17. JAN 2020 17:56:22



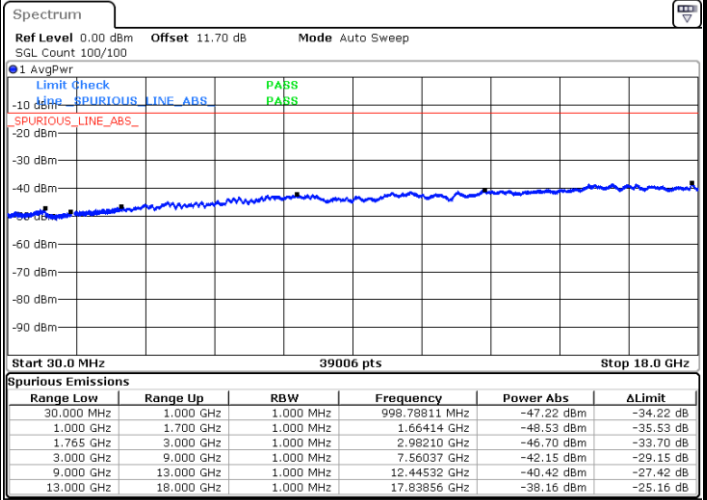
LTE Band 4 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

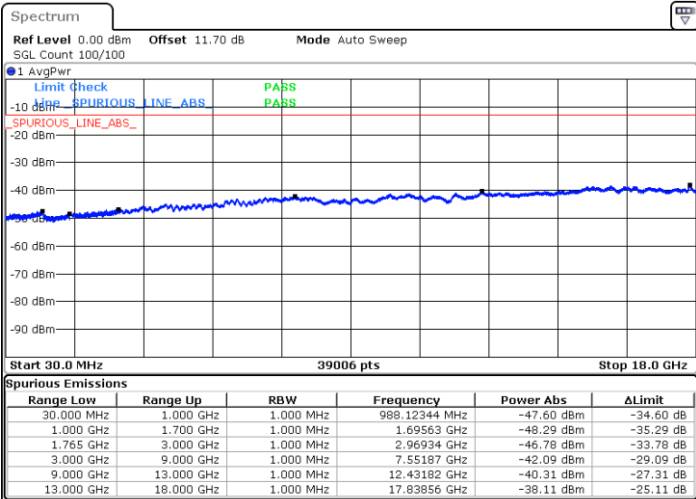


Date: 17.JAN.2020 17:59:30



Date: 17.JAN.2020 18:00:34

Highest Channel / 64QAM



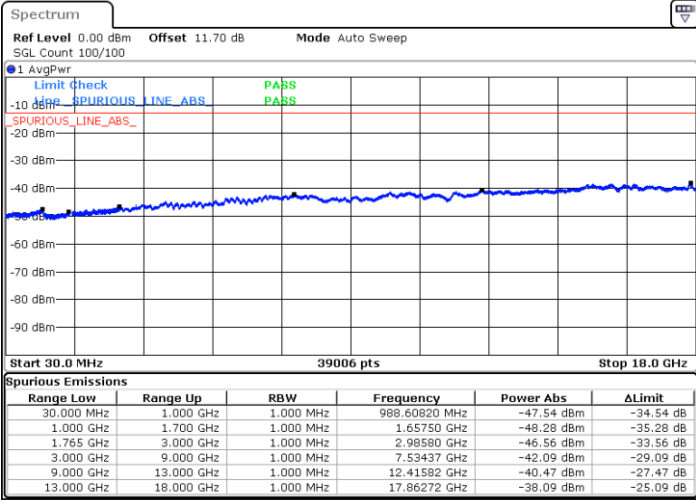
Date: 17.JAN.2020 18:03:41



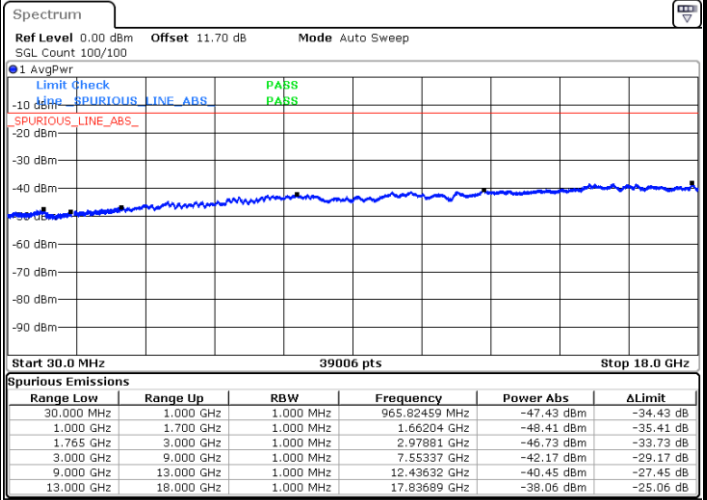
LTE Band 4 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

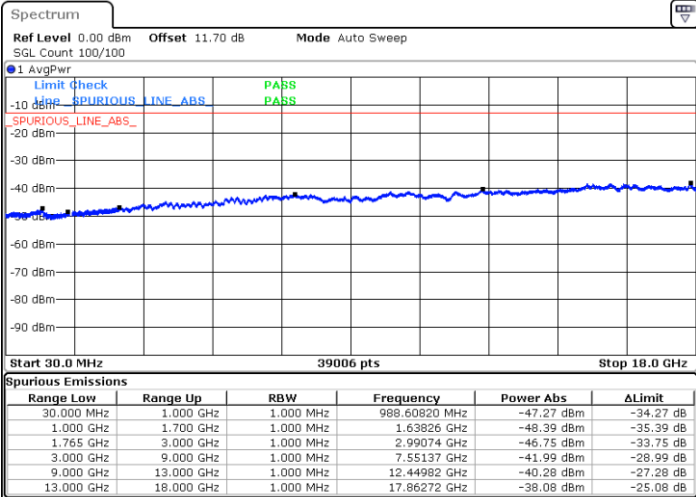


Date: 17. JAN 2020 18:35:59



Date: 17. JAN 2020 18:37:03

Highest Channel / 64QAM



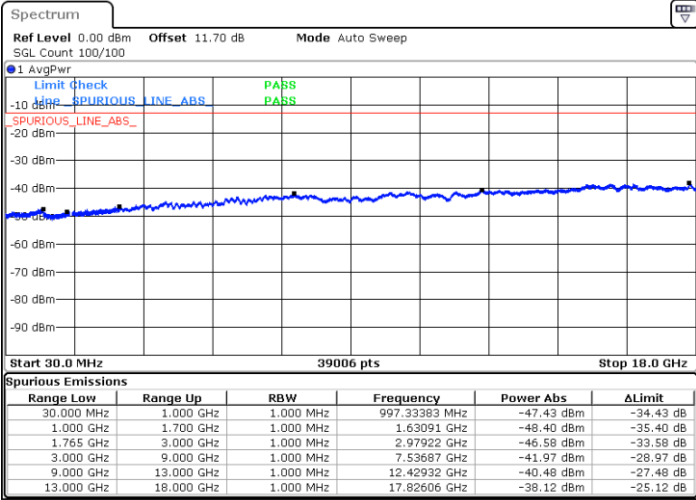
Date: 17. JAN 2020 18:40:10



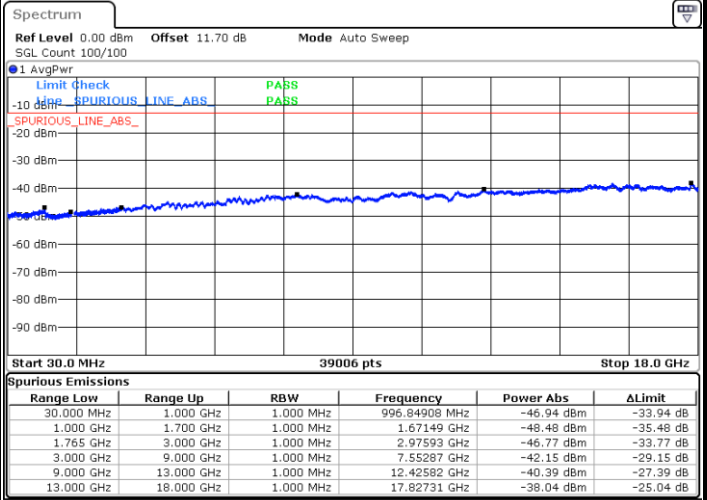
LTE Band 4 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

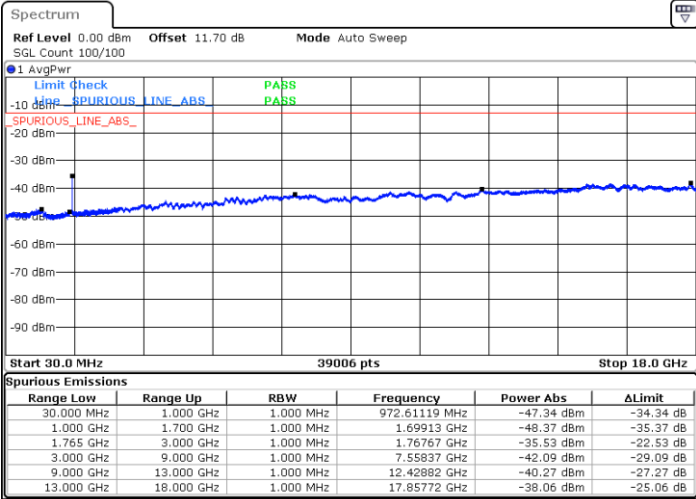


Date: 17.JAN.2020 18:57:52



Date: 17.JAN.2020 18:58:56

Highest Channel / 64QAM



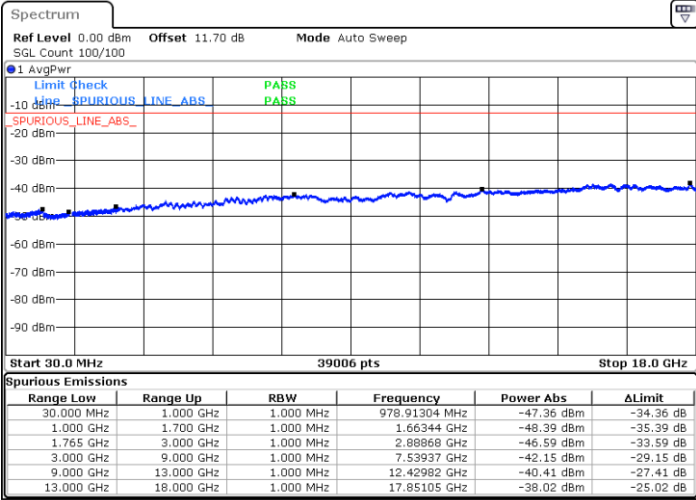
Date: 17.JAN.2020 19:02:03



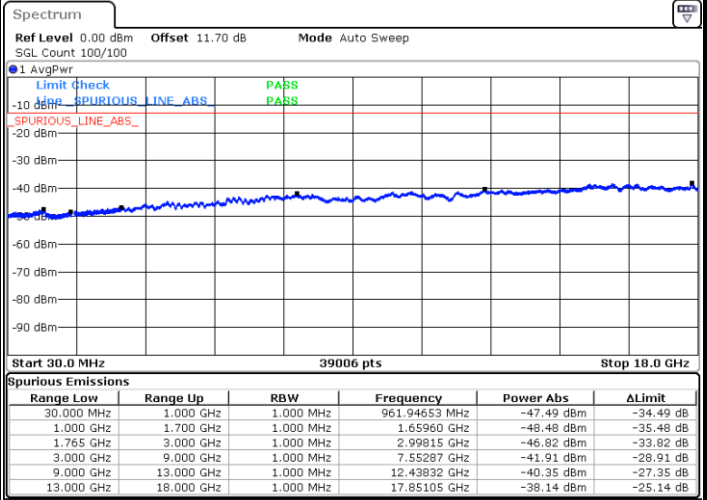
LTE Band 4 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

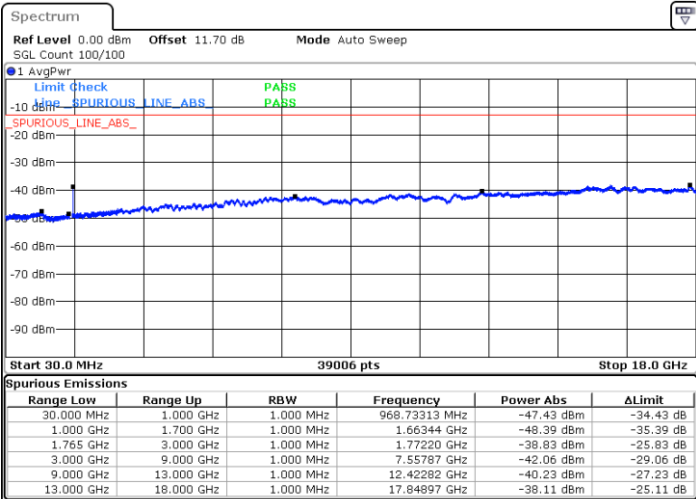


Date: 17. JAN 2020 19:19:45



Date: 17. JAN 2020 19:20:49

Highest Channel / 64QAM



Date: 17. JAN 2020 19:23:55



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0077	PASS
40	Normal Voltage	0.0085	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0084	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0084	
-20	Normal Voltage	0.0082	
-30	Normal Voltage	0.0077	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0088	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of EIRP and Radiated Test

EIRP

LTE Band 4 / 1.4MHz (Average) (GT - LC = -1.92 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	3	21.77	0.1503	19.85	0.0966
Middle		1	3	21.84	0.1528	19.92	0.0982
Highest		1	3	21.95	0.1567	20.03	0.1007
Lowest	16QAM	1	3	21.51	0.1416	19.59	0.0910
Middle		1	3	21.57	0.1435	19.65	0.0923
Highest		1	3	21.89	0.1545	19.97	0.0993
Lowest	64QAM	1	0	20.48	0.1117	18.56	0.0718
Middle		1	0	20.41	0.1099	18.49	0.0706
Highest		1	0	20.84	0.1213	18.92	0.0780
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average) (GT - LC = -1.92 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	21.89	0.1545	19.97	0.0993
Middle		1	8	21.89	0.1545	19.97	0.0993
Highest		1	8	21.90	0.1549	19.98	0.0995
Lowest	16QAM	1	8	21.74	0.1493	19.82	0.0959
Middle		1	8	21.47	0.1403	19.55	0.0902
Highest		1	8	21.72	0.1486	19.80	0.0955
Lowest	64QAM	1	8	20.72	0.1180	18.80	0.0759
Middle		1	8	20.70	0.1175	18.78	0.0755
Highest		1	8	20.51	0.1125	18.59	0.0723
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz (Average) (GT - LC = -1.92 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	21.79	0.1510	19.87	0.0971
Middle		1	12	21.70	0.1479	19.78	0.0951
Highest		1	12	21.88	0.1542	19.96	0.0991
Lowest	16QAM	1	12	21.85	0.1531	19.93	0.0984
Middle		1	12	21.55	0.1429	19.63	0.0918
Highest		1	12	21.80	0.1514	19.88	0.0973
Lowest	64QAM	1	12	20.48	0.1117	18.56	0.0718
Middle		1	12	20.64	0.1159	18.72	0.0745
Highest		1	12	20.86	0.1219	18.94	0.0783
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 10MHz (Average) (GT - LC = -1.92 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.76	0.1500	19.84	0.0964
Middle		1	0	21.78	0.1507	19.86	0.0968
Highest		1	0	21.95	0.1567	20.03	0.1007
Lowest	16QAM	1	49	21.67	0.1469	19.75	0.0944
Middle		1	49	21.86	0.1535	19.94	0.0986
Highest		1	49	21.92	0.1556	20.00	0.1000
Lowest	64QAM	1	49	20.60	0.1148	18.68	0.0738
Middle		1	49	20.54	0.1132	18.62	0.0728
Highest		1	49	20.83	0.1211	18.91	0.0778
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average) (GT - LC = -1.92 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	21.75	0.1496	19.83	0.0962
Middle		1	37	21.80	0.1514	19.88	0.0973
Highest		1	37	21.95	0.1567	20.03	0.1007
Lowest	16QAM	1	37	21.65	0.1462	19.73	0.0940
Middle		1	37	21.53	0.1422	19.61	0.0914
Highest		1	37	21.80	0.1514	19.88	0.0973
Lowest	64QAM	1	37	20.70	0.1175	18.78	0.0755
Middle		1	37	20.68	0.1169	18.76	0.0752
Highest		1	37	20.79	0.1199	18.87	0.0771
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average) (GT - LC = -1.92 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	21.81	0.1517	19.89	0.0975
Middle		1	49	21.51	0.1416	19.59	0.0910
Highest		1	49	21.97	0.1574	20.05	0.1012
Lowest	16QAM	1	49	21.44	0.1393	19.52	0.0895
Middle		1	49	21.48	0.1406	19.56	0.0904
Highest		1	49	21.80	0.1514	19.88	0.0973
Lowest	64QAM	1	0	20.78	0.1197	18.86	0.0769
Middle		1	0	20.43	0.1104	18.51	0.0710
Highest		1	0	20.79	0.1199	18.87	0.0771
Limit	EIRP < 1W			Result		PASS	



Radiated Spurious Emission

LTE Band 4

LTE Band 4 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3439	-52.37	-13	-39.37	-68.87	-63.37	1.35	12.35	H
	5159	-47.87	-13	-34.87	-69.62	-59.04	1.65	12.82	H
	6879	-42.50	-13	-29.50	-68.18	-52.83	1.74	12.07	H
	3439	-51.64	-13	-38.64	-68.54	-62.64	1.35	12.35	V
	5159	-48.30	-13	-35.30	-69.83	-59.47	1.65	12.82	V
	6879	-43.15	-13	-30.15	-68.41	-53.48	1.74	12.07	V
Middle	3464	-51.13	-13	-38.13	-67.87	-62.19	1.35	12.41	H
	5197	-48.30	-13	-35.30	-70.07	-59.51	1.66	12.88	H
	6929	-42.71	-13	-29.71	-68.64	-52.98	1.73	12.00	H
	3464	-51.40	-13	-38.40	-68.53	-62.46	1.35	12.41	V
	5197	-47.87	-13	-34.87	-69.47	-59.08	1.66	12.88	V
	6929	-43.11	-13	-30.11	-68.58	-53.38	1.73	12.00	V
Highest	3489	-52.05	-13	-39.05	-69.02	-63.17	1.36	12.47	H
	5234	-48.06	-13	-35.06	-69.95	-59.32	1.67	12.93	H
	6979	-42.14	-13	-29.14	-68.32	-52.35	1.72	11.93	H
	3489	-51.93	-13	-38.93	-69.27	-63.05	1.36	12.47	V
	5234	-48.38	-13	-35.38	-70.07	-59.64	1.67	12.93	V
	6979	-42.83	-13	-29.83	-68.53	-53.04	1.72	11.93	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

—————THE END—————